

ABSTRACT

A burst mode receiver using a multi-stage feedback reduces its pulse width distortion in output data and improves its sensitivity by exactly extracting a reference voltage used as a detection threshold based on a packet transmission for an optical multi-access network. The receiver comprises a differential preamplifier circuit for generating an output voltage after detecting a difference between a detected current input signal from photodetector and a reference input signal; current source for compensating an offset of the differential preamplifier circuit; multistage amplifier means for adjusting a voltage level of the reference signal to a half value of the output voltage of the differential preamplifier circuit; blocking transistor for responding to an output of the multistage amplifier means; capacitor for storing a peak amplitude of the detected current input signal; and buffer transistor for controlling a discharge rate of the capacitor.

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